

GE6NF-E

GENERATOR, TWO-TONE

**1. GENERAL.** This procurement requires a solid-state, two-tone signal generator.

**2. CLASSIFICATION.** Type II, Class 5, Style E, and Color R in accordance with MIL-T-28800 for shipboard applications.

**3. OPERATIONAL REQUIREMENTS.** The equipment shall be provided with two independent oscillators, each variable in frequency and amplitude. The equipment shall be provided with a method to monitor the level of each signal and to combine the two oscillator signals into one composite output. The composite signal shall be adjustable by means of a built-in attenuator. Except where indicated, the minimum characteristics identified below shall apply both to the individual oscillators and to the composite signal.

**3.1 Frequency range.** 20 Hz to 20 kHz. Accuracy:  $\pm(1\% + 0.2 \text{ Hz})$ .

**3.2 Intermodulation distortion.** 60 dB below the signal level.

**3.3 Harmonic distortion.** 0.05% maximum from 63 Hz to 6.3 kHz and 0.1% over the remaining specified frequency range.

**3.4 Hum.** 66 dB below the output signal.

**3.5 Output impedance.** 600 ohms nominal.

**3.6 Output attenuator.** 0 dB to 70 dB in 1 dB steps. Attenuator accuracy:  $\pm(1\% + 0.2 \text{ dB})$  of setting.

**3.7 Output level.** Continuously adjustable from -25 dBm to +15 dBm.

**3.7.1 Frequency response.**  $\pm 0.5 \text{ dB}$ .

**3.8 Level monitor.** dBm and voltage readout. Accuracy:  $\pm 5\% \text{ FS}$ .

**4. GENERAL REQUIREMENTS.**

**4.1 Power Source.** MIL-T-28800 nominal power source requirements are invoked. Maximum power consumption: 15W.

**4.2 Weight.** 20 kg (44 lb) maximum.

**4.3 Lithium batteries.** Per MIL-T-28800, lithium batteries are prohibited without prior authorization. A request for approval for the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.